USDA Foreign Agricultural Service

# Iraq: Winter Grains Production

**MY 2008/09** **May 16, 2008**

**May Report – Week 3**

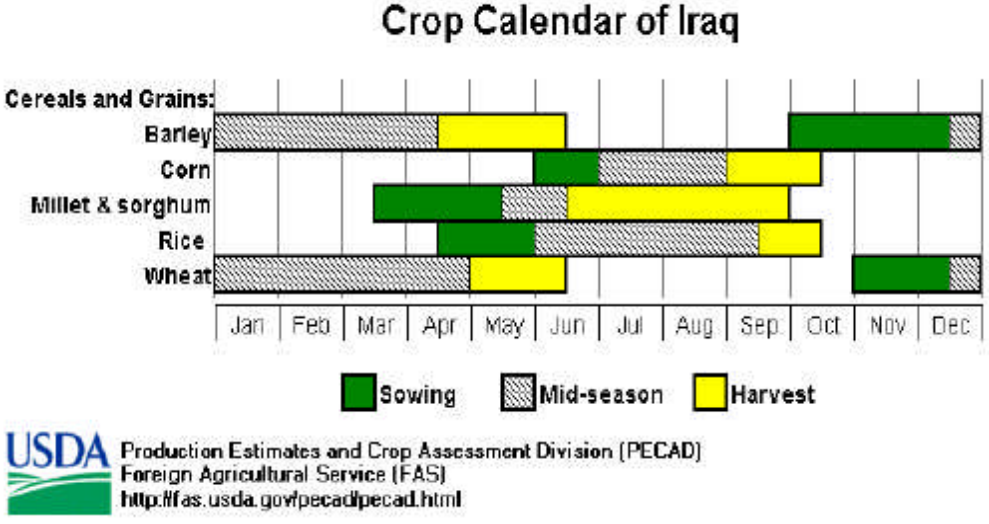
1. Production for MY 2008/09 winter grains is forecasted to be lower than the previous year primarily due to poor precipitation during crop planting and establishment. The most significant decreases in winter grains production are expected in the northern rainfed governorates. The Ninawa province was reported to be the most impacted with significantly winter grains low production. NDVI time series chart of Ninawa crop abundance showed significantly low productivity compared to the average (Figure 1).

2. MODIS NDVI time series data were averaged on a regional basis and graphed from MY 2003/04 to MY 2008/09. All regions showed lower productivity in MY 2008/09 compared to previous years and the average, especially in the northern and central governorates. The graphs peaked in early to mid-April and followed a decreasing trend from late-April to early-May; this indicates senescing crop and harvest, and appears to correspond with the average (Figure 1).

3. High resolution Quickbird imagery collected on Apr 1st, 2008 and May 7th, 2008, showed evidence of change in crop cover (Figure 2). Comparison of NDVI from the same scenes showed a decrease in the vegetative signal, thus indicating crop senescence and harvest (Figure 3).

4. A change analysis conducted on AWiFS IRS P-6 NDVI between early-April 2008 and early-May 2008 showed areas of decreasing crop cover predominantly in the central and southern governorates; this corresponds to winter grains harvesting which typically begins in mid-April and early-May (Figure 4). Large harvested areas are apparent in the provinces of Babil and Wasit (Figure 5)





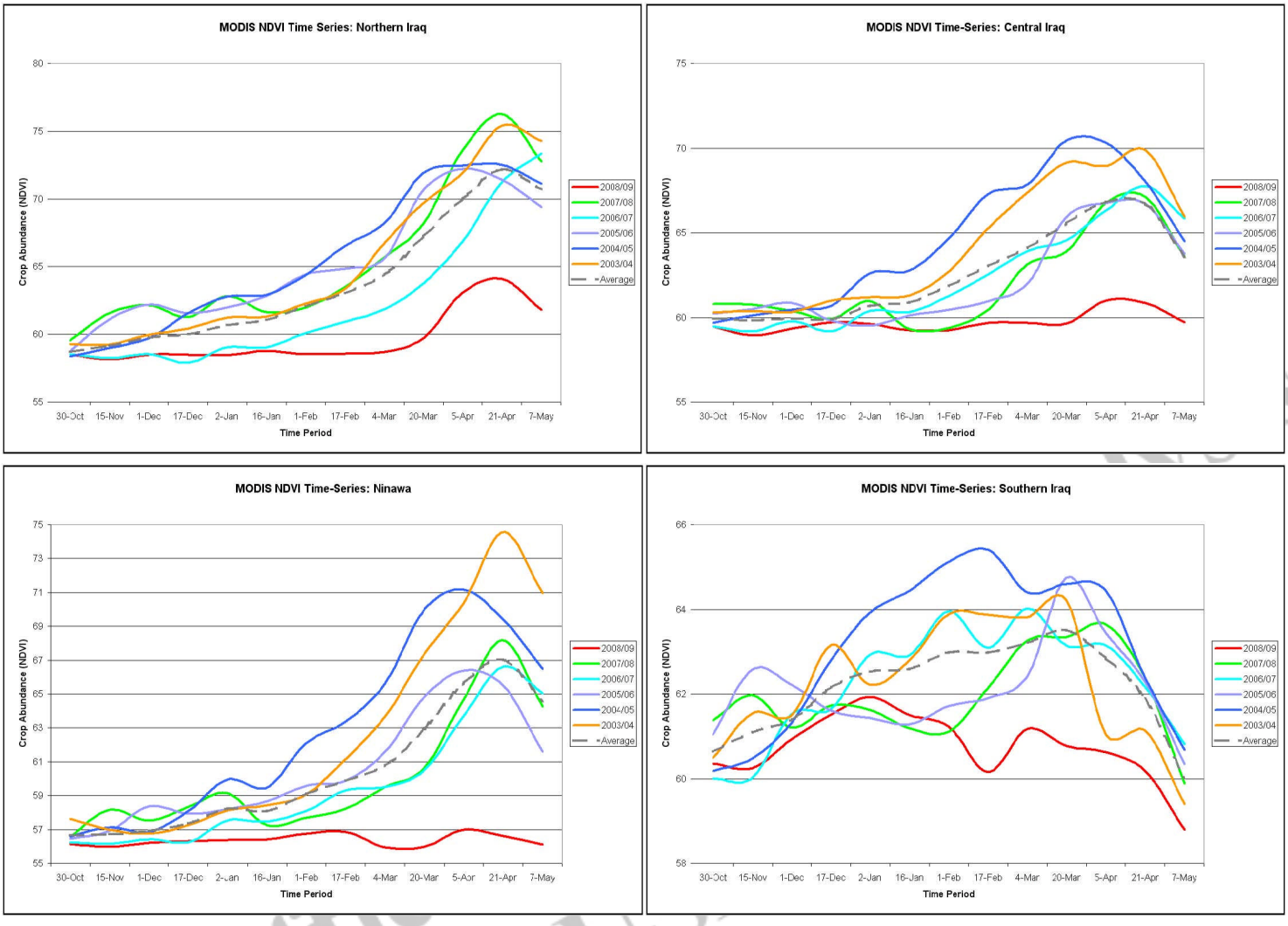



Figure 1: MODIS NDVI time series data ranging from MY 2003/04 to MY 2008/09.

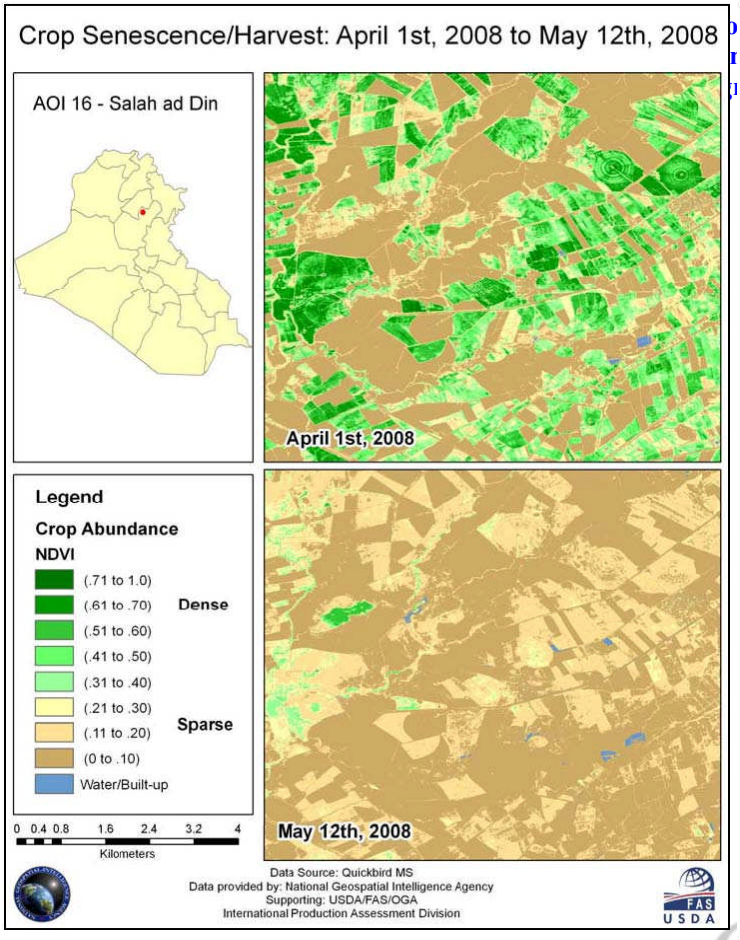



Figure 2: Quickbird high resolution imagery acquired over AOI 16, Salah ad Din.

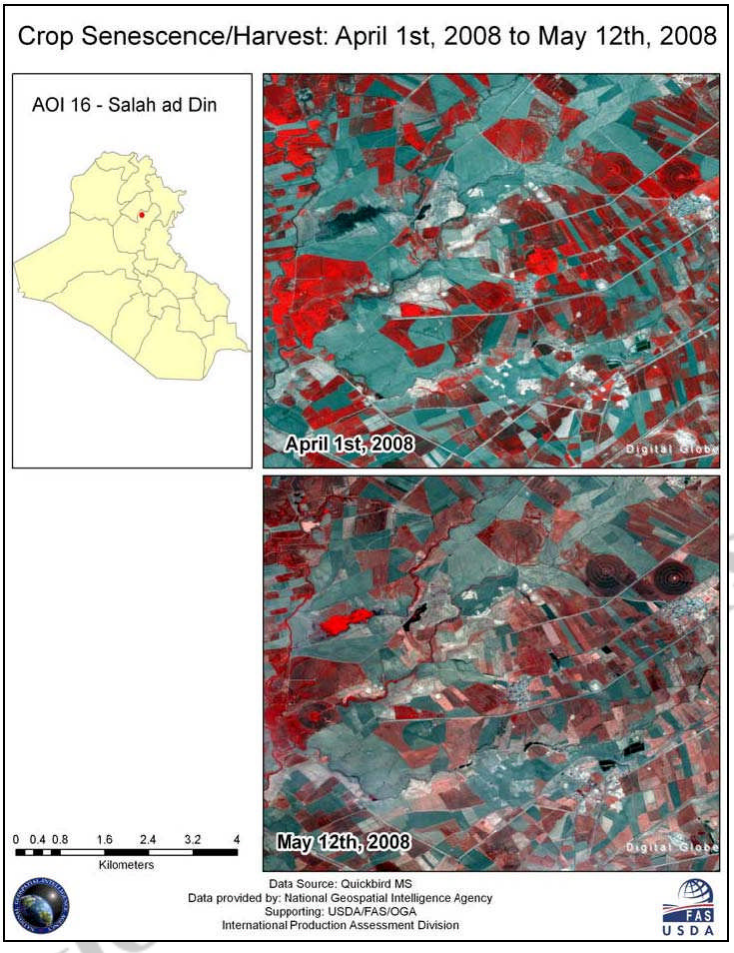



Figure 3: NDVI map derived from Quickbird high resolution imagery.

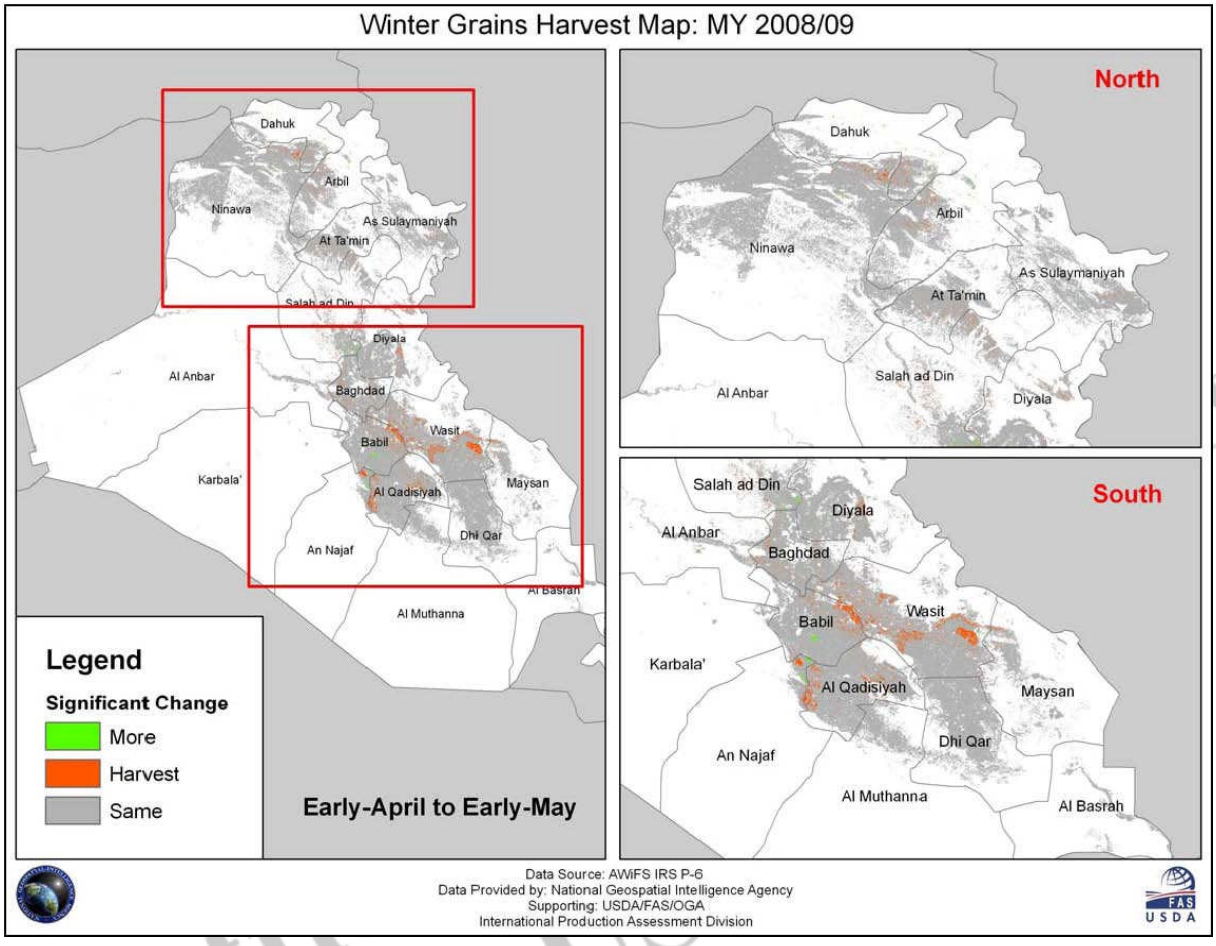



Figure 4: Winter grains harvest map derived from AWiFS IRS P-6 NDVI change analysis.

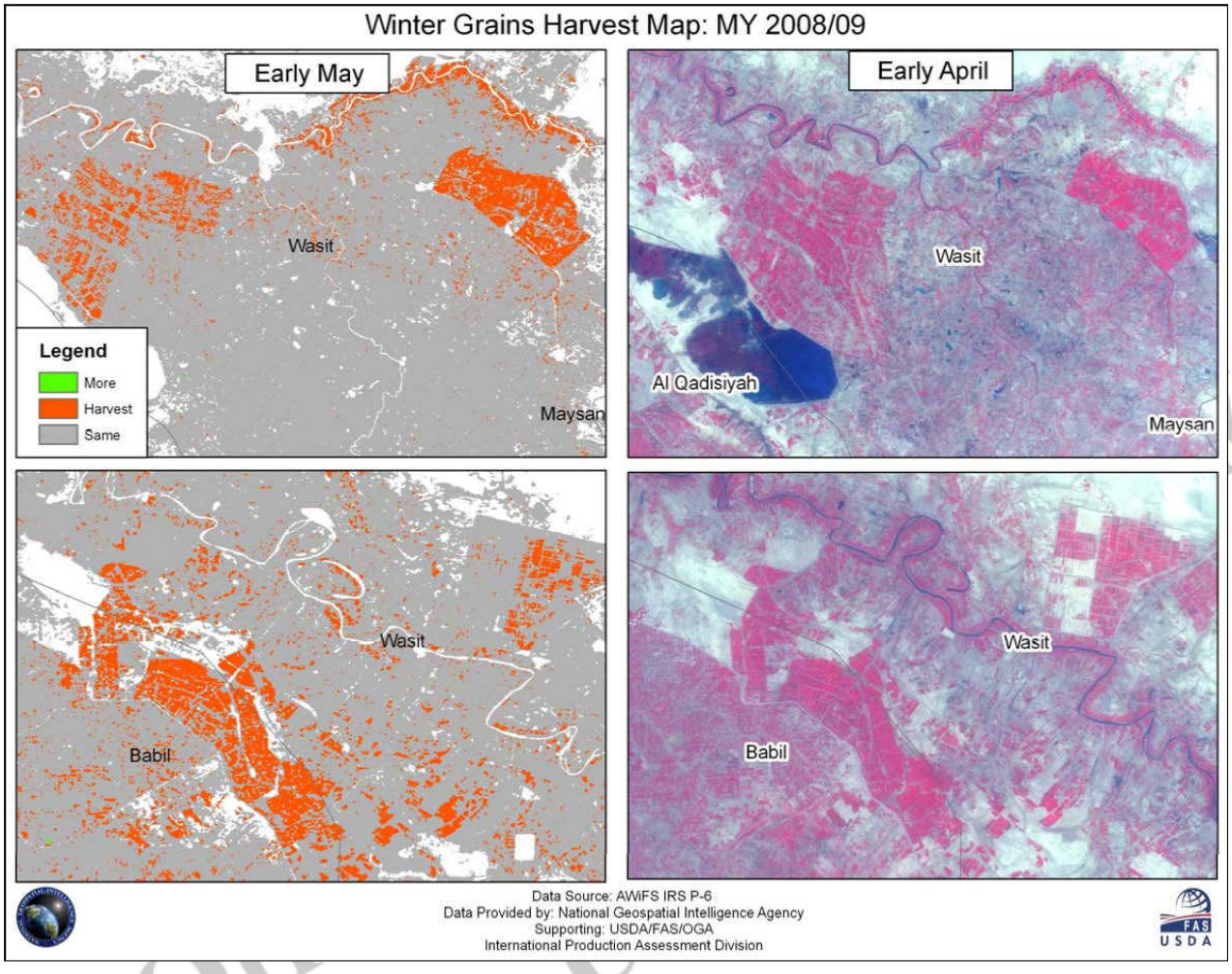



Figure 5: Regional subset showing large harvested areas in Wasit and Babil. Early April image is false color infrared composite depicting pre-harvested crop in early April.